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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,978	12/28/2001	Charles Brandenburg	CL1724 US NA	8691

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WILMINGTON, DE 19805

EXAMINER

WYROZEBSKI LEE, KATARZYNA I

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,978

Applicant(s)

BRANDENBURG ET AL.

Examiner

Katarzyna Wyrozebski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5,11,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42 and 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,11,12,14,16,18,20,22,24,26,28,30,32,34,36,38,40,42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The finality of the office action mailed on 8/31/2004 is hereby withdrawn. An updated search uncovered references (US 4,221,697 and EP 1 063 266) that are pertinent to this application. Rejections using these references are set forth below. The delay in prosecution is regretted.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 3, 5, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 36, 38, 40, 42, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSBORN (US 4,221,697) in view of SCHWIND (US 5,880,235).

The prior art of OSBORNE discloses moldable and curable composition. Composition of OSBORN comprises copolymer and filler in amount of 20-90 % by volume.

The filler of OSBORNE includes carbonates, oxides, glass, alumina, silica, and quartz (col. 4 line 59 to col. 5, line 9).

Polymeric component comprises liquid monomer mixture. The monomers clearly envisaged by OSBORNE and taught and suggested includes monomers of an ester of methacrylic acid, wherein the ester has 1-18 carbon atoms (col. 2, lines 10-14) and lactone (col. 2, line 37). The monomers are polymerized utilizing radical initiator.

The difference between the present invention and the disclosure of the prior art of OSBORN is recitation of specific monomeric species of copolymer comprised of lactone and acrylate.

With respect to the above difference, the prior art of SCHWIND also discloses moldable composition comprising copolymer of methacrylic ester and lactone.

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The copolymer of SCHWIND, comprises α - methylene - γ - lactone and methyl methacrylate (col. 10, lines 15-17). The lactones include butyrolactones and valerolactones as listed in col. 6 of SCHWIND. Copolymer of SCHWIND is also polymerized utilizing radical initiator.

The copolymer of SCHWIND is a copolymer that can be utilized in moldable composition and comprises monomer components taught and suggested by the disclosure of OSBORN.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art to utilize the copolymer of SCHWIND in the composition of OSBORN and thereby obtain the claimed invention. Such modification would have been obvious in the light that OSBORN discloses lactone and MMA monomers; therefore such copolymer would provide composition sought by OSBORN.

5. Claims 1, 3, 11, 12, 14, 24, 26, 36, 38, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over KRIESSMANN (EP 1 063 266 translation pending) in view of SCHWIND (US 5,880,235).

The prior art of KRIESSMANN is applicable against present invention, since pending independent claims contain open language, which encompasses other monomeric components.

The prior art of KRIESSMANN discloses coating composition comprising acrylic based polymers and fillers. The polymers of KRIESSMANN comprise monomers of lactone and methacrylic acid ester, such as MMA.

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Fillers of KRIESSMANN include zinc oxide, glass beads, quartz [0027]. Fillers are utilized in amount of 100-500 pbw of the polymer per 100 parts of polymer [0026]. Therefore, if polymer is utilized in 100 wt % and filler in 100 wt %, then they are in 50/50 mixture. The amounts of 50 wt% of polymer and 50 wt % of filler lie squarely in the middle of the range required by the present claims.

The difference between the present invention and the disclosure of the prior art of KRIESSMANN is specific recitation of lactone monomers that are suitable for polymerization with methacrylic esters.

With respect to the above difference, the discussion of the disclosure of the prior art of SCHWIND from paragraph 4 of this office action is incorporated here by reference.

The prior art of SCHWIND discloses methacrylate copolymer that comprises lactone and MMA as components.

In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize copolymer of SCHWIND in the composition of KRIESSMANN and thereby arrive at the present invention, since the monomeric components of SCHWIND are taught by the disclosure of KRIESSMANN.

6. Claims 24, 26, 28, 30, 32, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over OSBORN (US 4,221,697) in view of SCHWIND (US 5,880,235) as applied to claims 1, 3, 5, 11, 12, 14, 16, 18, 20, 22, 24, 26, 28, 36, 38, 40, 42, 43 above, and further in view of MOORMAN (US 5,319,014).

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The discussion of the disclosure of the prior art of OSBORN and SCHWIND from paragraph 4 of this office action is incorporated here by reference.

The difference between the present invention and the disclosure OSBORN and SCHWIND is recitation of the articles that can be utilized from acrylic containing copolymers.

The prior art of MOORMAN discloses methacrylate containing polymer that is utilized in making molded article such as sinks with alumina-trihydrate as filler.

Although the prior art of MOORMAN does not teach polymer that contains lactone monomer, its properties are similar. In addition SCHWIND teaches that lactone containing polymers are more dimensionally stable than those containing just acrylic monomer.

In the light of the above disclosure, it would have been obvious to one having skill in the art to utilize copolymer of OSBORN and SCHWIND in an article of MOORMAN. One would produce article that is more dimensionally stable than those comprising only acrylic monomers.

6. With respect to the applicant's arguments regarding the prior art of SCHWIND, such are considered moot due to change of rejection. The examiner would like to address the transparency issue. Although the prior art of SCHWIND teaches transparent article, the transparency itself is not part of the present claims. The applicants' arguments are therefore not parallel to the scope of the claims of the present invention. The examiner would like to also point out that even if one adds fillers to transparent plastic, it does not mean that the filler would adversely affect transparency. Transparency of the polymer depends on factors such as refractive index of the filler, amount of the filler and its particle size just as an example. If applicants feel

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that an interview would further expedite the prosecution of this application, an interview is highly solicited.

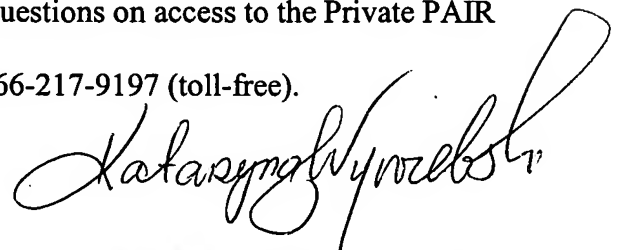
Priority

Applicants are hereby requested to insert the appropriate priority information as a first paragraph of the specification.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KATARZYNA WYROZEBSKI-LEE
PRIMARY EXAMINER
Nov. 19, 2009